REMARKS/ARGUMENTS

Claims 1 and 4 are in the application.

Claim 1 has been amended to recite the film onto which the acrylate laquer applied is polyethylene terephthalate. Basis is at page 4, line 18. The Claim further specifies that the acrylate lacquer is applied from an organic solvent which can be toluene, butyl acetate or ketones (page 4, line 25). (The primer consists of acrylic compounds, but is water-based, and is thus distinguished from the lacquer.) Claim 4 has been amended to remove the term "polyester" as being redundant in view of the amendments to Claim 1.

It is submitted that all amendments are fully supported, and entry is requested.

Formal Matters

For the record, there are no objections or rejections under §112 outstanding.

Rejections Under 35 USC 103

Claims 1 and 4 again stand rejected over WO 93/08084, US patents 5,200,253, 5,453,301, 5,658,968 and 3,945,963 ('963 being cited against only Claim 8 in the previous Office Action, but now being cited against Claims 1 and 4).

Applicants respectfully traverse the rejections, to the extent they may apply to the claims as now amended.

For the record, all arguments in support of patentability continue to be maintained, but will not be extensively repeated herein, for the sake of brevity.

To reiterate the substance of the hologram process of the present invention: 1.) A lacquer layer which is organic solvent-based is applied to a PET layer and embossed. 2.) Aluminum is layered onto said embossed layer. 3.) Organic solvent-based ink would normally then be used for printing on the resulting aluminized/embossed layer.

As discussed in the specification (page 2, lines 14-17 and page 4, lines 7-11), the problem arises with the printing step. Applicants have discovered that organic solvent from the ink can pass through pinholes in the aluminum layer and deleteriously interact with the organic solvent-based lacquer layer. In order to solve this heretofore unsuspected problem in the "admitted" prior art, Applicants apply a water-based acrylic primer on the aluminum layer, which blocks passage of the ink-solvent therethrough. The integrity of the underlying lacquer layer is thereby preserved.

The Examiner's attention is again (cf. Amendment of 5/10/05, page 4) directed to MPEP 2141.02. The discovery of the problem must be considered as art of the "subject matter as a whole" test under §103. It is submitted that not one of the cited patents, nor the assertedly "admitted prior art," suggests this problem.

It is respectfully submitted that the Examiner's comments at pages 5-6 of the Office Action misapprehend the problem discovered by Applicants – i.e., the unwanted migration of the organic ink solvent through the aluminum to disrupt the underlying lacquer. The satisfactory use of water-borne primer to solve the problem would not be obvious, since no such problem is recognized in the cited patents.

Turning again to the cited documents, it is submitted that WO 93 does not teach or suggest separation of the printing layer from the metallic layer by the primer to prevent ink-solvent migration through the metallic layer. WO 93 either prints directly onto the aluminum, or prints onto a separate material – in particular, a primer-coated "transparent polypropylene layer" as specifically disclosed in WO 93 at page 3, line 31.

With regard to '253, it is submitted that nothing therein suggest that the embossed layer comprising a lacquer laid-down from an organic solvent might be susceptible to disruption by ink-solvent migrating through an overlying metallic layer. Thus, having evidenced no appreciation of the problem, '253 does not fairly suggest its solution in the manner of the present invention.

The '301 document teaches the need to use water-dilutable lacquers, e.g., automobile lacquers (column 2, line 36). Contrary to '301, the embossed lacquer used herein is organic solvent-based. The issue herein is not the environmental impact caused by the solvent (per '301), but the integrity of the lacquer after printing.

With regard to '968, it is submitted that nothing in this document appears to relate to the manufacture of holographic structures, as in the present invention. Rather, U.S. '968 is directed to the problem of printing on packaging material, which, assertedly, can result in the "blocking" problem (i.e., sticking or transfer of the image to the underside of the web) which is familiar in the package printing art. Thus, it is submitted that nothing in U.S. '968 evidences any appreciation of the problem discovered herein, nor is fairly suggestive of the solution arrived at by Applicants.

The '963 patent discusses the problems associated with various alkyl acrylate polymer lacquers – see column 1, lines 15-30 – and, assertedly, solves the problems by means of a unique acrylate-epoxy resin "interpolymer" formulation (column 2, lines 15-25).

It is respectfully submitted that the asserted improvement in lacquer formulations disclosed in '963 has no relevance to the present invention. It may be true that an alternative solution to Applicant's lacquer/solvent problem would be to employ the improved lacquer of '963. But, that is not what Applicants have chosen to do. Their lacquers are acrylic lacquers, not acrylic-based epoxy lacquers such as in '963. As such, problems arise, as discussed hereinbefore. Applicants' solution to said problems is nowhere suggested in '963.

In short, it is submitted that the present invention is patentable over the foregoing combination of documents. Early and favorable action is respectfully requested.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

By _____
Jerry J. Yetter
Registration No. 26,598
(513) 627-2996

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Customer No. 27752